

CLAIMS

What is claimed is:

1. A method for performing device address assigning functionality in

5 intelligent hardware, said method comprising:

receiving a network access request from an electronic device

communicatively coupled to said intelligent hardware;

transmitting a device address request to a network server

communicatively coupled to said intelligent hardware;

10 receiving a first device address from said network server

communicatively coupled to said intelligent hardware; and

assigning a second device address to said electronic device

communicatively coupled to said intelligent hardware.

15 2. A method as recited in Claim 1 wherein said intelligent hardware comprises:

a first interface for communicatively coupling said intelligent hardware to a network, said network comprising said network server;

20 a second interface for communicatively coupling said intelligent hardware to a plurality of said electronic devices such that each said electronic device is communicatively coupled to said network;

a processor coupled to said first interface and said second interface;

and

a device address retriever coupled to said processor.

3. A method as recited in Claim 1 wherein said first device address and said second device address are an IP addresses.

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4. A method as recited in Claim 1 wherein said network server comprises a DHCP server.

5. A method as recited in Claim 1 wherein said first device address is the same as said second device address.

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6. A method as recited in Claim 1 wherein said first device address is a global device address.

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7. A method as recited in Claim 1 wherein said second device address is a private device address.

8. A method for performing device address assigning functionality in intelligent hardware, said method comprising:

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receiving a network access request from an electronic device communicatively coupled to said intelligent hardware, said intelligent hardware having a first device address;

assigning a second device address to said electronic device
communicatively coupled to said intelligent hardware, such that said intelligent
hardware eliminates the need for a separate device address assigning server.

5 9. A method as recited in Claim 8 wherein said intelligent hardware
comprises:

 a first interface for communicatively coupling said intelligent hardware to
a network;

 a second interface for communicatively coupling said intelligent
10 hardware to a plurality of said electronic devices such that each said electronic
device is communicatively coupled to said network;

 a processor coupled to said first interface and said second interface;
and

 a device address assignor coupled to said processor.

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 10. A method as recited in Claim 8 wherein said first device address
and said second device address are IP addresses.

 11. A method as recited in Claim 9 wherein said device address
20 assignor is a DHCP server.

 12. A method as recited in Claim 8 wherein said first device address
is the same as said second device address.

13. A method as recited in Claim 8 wherein said first device address is a global device address.

5 14. A method as recited in Claim 8 wherein said second device address is a private device address.

15. An intelligent device for performing device address assigning functionality comprising:

10 a first interface for communicatively coupling said intelligent device to a network;

a second interface for communicatively coupling said intelligent device to a plurality of electronic devices such that each said electronic device is communicatively coupled to said network;

15 a processor coupled to said first interface and said second interface; and

a device address retriever coupled to said processor for retrieving a first device address for said intelligent device from a network server of said network and for assigning a second device address to said electronic device.

20 16. An intelligent device as recited in Claim 15 wherein said first device address and said second device address are IP addresses.

17. An intelligent device as recited in Claim 15 wherein said network server is a DHCP server.

18. An intelligent device as recited in Claim 15 wherein said first
5 device address is the same as said second device address.

19. An intelligent device as recited in Claim 15 wherein said first device address is a global device address.

10 20. An intelligent device as recited in Claim 15 wherein said second device address is a private device address.

15 21. An intelligent device for performing device address assigning functionality, said intelligent device having a first device address, said intelligent device comprising:

a first interface for communicatively coupling said intelligent device to a network;

a second interface for communicatively coupling said intelligent device to a plurality of electronic devices such that each said electronic device is
20 communicatively coupled to said network;

a processor coupled to said first interface and said second interface;
and

a device address assignor coupled to said processor for assigning a second device address to said electronic device.

22. An intelligent device as recited in Claim 21 wherein said first
5 device address and said second device address are IP addresses.

23. An intelligent device as recited in Claim 21 wherein said device
address assignor is a DHCP server.

10 24. An intelligent device as recited in Claim 21 wherein said first
device address is the same as said second device address.

25. An intelligent device as recited in Claim 21 wherein said first
device address is a global device address.

15 26. An intelligent device as recited in Claim 21 wherein said second
device address is a private device address.